



Product Data Sheet

Automatic Gas Dosing Unit for the Kesternich Test – DosiCORR® AD



Order Information

The AKES option is available for the following test chambers:

CON 400-FL AIR CWC AWRP* AKES
Article number: V.751.262.221

CON 1000-FL AIR CWC AWRP* AKES
Article number: V.755.262.221

CON 3000-FL AIR CWC AWRP* AKES
Article number: V.758.262.221

CON 3500-FL AIR CWC AWRP* AKES
Article number: V.759.262.221

*AWRP option requires a permanent source of Demi water under pressure

CCT 400-FL AKES
Article number: V.751.162.221

CCT 1000-FL AKES
Article number: V.755.162.221

CCT 3000-FL AKES
Article number: V.758.162.221

CCT 3500-FL AKES
Article number: V.759.162.221

CC 400-FL AKES
Article number: V.745.672.430

CC 1000-FL AKES
Article number: V.745.672.430

CC 3000-FL AKES
Article number: V.748.672.430

CC 3500-FL AKES
Article number: V.749.672.430

Sales & Support:

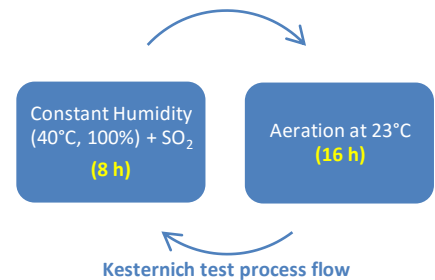
+49 5205 87963 0
Monday to Friday
8:00 am – 17:00 pm

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Specification subject to changes
Pictures might differ from original

Applicable Test Standards

- EN ISO 6988
- DIN 50018
- ASTM G87
- ASTM G85 (A4)



Product Description

The automatic gas dosing system for Kesternich test (DosiCORR® AD) in the SO₂ environment is an option for high-end VLM test chambers featuring Beckhoff PLC controller. These test chambers (typically ClimaCORR and CCT type of chambers) are equipped with a separate safety cabinet located in the bench underneath the test chamber with cradles for placing 1 or 2 bottles with SO₂.

The control of the DosiCORR® AD gas dosing system is fully integrated into the high performance Beckhoff PLC controller.

Customer Benefits

- Fully automatic Kesternich test procedure controlled by the high performance PLC controller
- The PLC control features fully automatic gas dosing and switching from one to another bottle when the first one gets empty
- Highly sensitive electronic mass flow meter allows accurate gas dosing and the indication of the remaining mass of the gas in the bottle on the display
- Modular design of VLM test chambers allows adding Kesternich test option long after the chamber has been commissioned
- Data logging



Gasket with the cradles for two bottles with SO₂

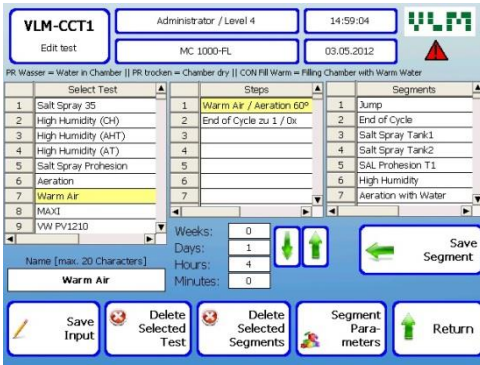


Electronic mass flow meter (shown type might differ)



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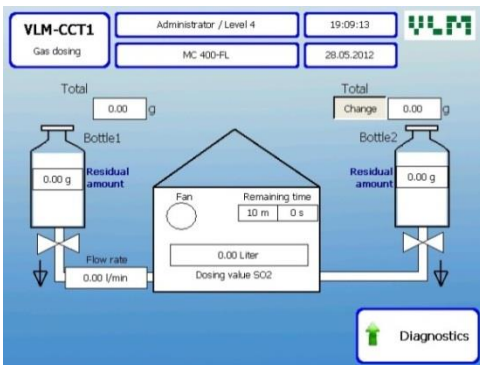


Interactive screen for managing Kesternich and other corrosion tests

Safety

SO₂ is a poisonous gas implying that the safety of the operating personnel was one of the main design requirements of the DosiCORR® AD dosing unit. For this reason this system meets the highest safety standards. Some of the features are:

- Accidental contact of the personnel with SO₂ is prevented even in the case of unexpected power failures
- After each Kesternich test the aeration fan inside the test chamber will automatically start and operate for 10 min in order to evacuate the last remnants of SO₂ out of the test chamber
- The door of the test chamber will be locked during these 10 minutes
- The dedicated ventilation system in the casket with SO₂ bottles is continuously operating during the Kesternich test
- The casket with SO₂ bottles is made of a special, fire-resistant material specially designed for this purpose



Interactive screen for setting up new gas bottles

Process Control

The operation of the DosiCORR® AD gas dosing unit is fully integrated in the process control of the ClimaCORR® test chambers. All functions and parameters of the Kesternich test are controlled through the touch screen of the Beckhoff PLC controller.

- A standard Kesternich test consists of two phases within one day (24 h) cycle from which the first phase features the introduction of the gas (SO₂) into the test chamber and the second phase features aeration. The volume of the gas per cycle (in litres) is configured via a dedicated touch screen on the Beckhoff controller and is a part of the overall control software for the management of the test chamber. The Kesternich test is a part of the High Humidity Condensation (CH) test and for this reason this segment has to be selected as a part of the test
- The standard gas dosing volume for Kesternich test is 2 L per test cycle (one test cycle takes typically 24 h).
- **NOTE:** All test chambers with AWRF option require a permanent source of demineralized water under pressure.



Fully automatic dosing system DosiCORR® AD for SO₂ in combination with the ClimaCORR® CC 400-FL test cabinet